

## METHOD AND APPARATUS FOR ESTIMATING DELAY AND JITTER BETWEEN MANY NETWORK ROUTERS USING MEASUREMENTS BETWEEN A PREFERRED SET OF ROUTERS

Jain, Bijendra N. McCloghrie, Keith

## ABSTRACT

5

10

15

20

A method and apparatus for determining a network performance metric in a network is described. The network includes a number of network elements and a number of links. Each of the network elements is coupled to at least one other of the network elements by at least one of the links. The method includes forming a first set of network element pairs, ordering a first number of network element pairs, forming a second set of network element pairs, measuring a measured network performance metric between a first network element pair and computing a computed network performance metric. The first set of network element pairs include a number of pairs of the network elements. The ordering of a first number of network element pairs includes network element pairs in the first set of network element pairs. The second set of network element pairs includes network element pairs in the first set of network element pairs. The measurement is taken between a first network element pair. The first network element pair includes a first network element and a second network element of one of the network element pairs in the second set of network element pairs. The computed network performance metric is computed between a second network element pair using the measured network performance metric. The second network element pair includes a first network element and a second network element of the network element pair in the first set of network element pairs.